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GREENBLUM & BERNSTEIN, P.L.C.
1950 ROLAND CLARKE PLACE
RESTON, VA 20191

EXAMINER	
COUGHLAN, PETER D	
ART UNIT	**PAPER NUMBER**
2129	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com
pto@gbpatent.com

mN

Office Action Summary	Application No.	Applicant(s)	
	10/049,627	TAN ET AL.	
	Examiner	Art Unit	
	Peter Coughlan	2129	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 August 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,9-14,19-21,23 and 24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,9-14,19-21,23 and 24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 April 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *'A'*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

1. This office action is in response to an AMENDMENT entered August 13, 2007 for the patent application 10/049627 filed on February 22, 2002.

2. All previous office actions are fully incorporated into this Non-Final Office Action by reference.

Status of Claims

3. Claims 1-3, 9-14, 19-21, 23-24 are pending.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are between the classifier being switched to the knowledge acquisition mode when a document has been determined to

be misrouted. How does the invention determine when to switch mode? How does the invention determine know when a document is misrouted? How are these two functions of the invention linked together?

These claims must be amended or withdrawn from consideration.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 9, 13, 14, 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masand et al, in view of Mathias et al, in view of Kamel et al. (U. S. Patent 5251131, referred to as **Masand**; U. S. Patent 6480627, referred to as **Mathias**; U. S. Patent 5937037, referred to as **Kamel**)

Claim 1

Masand teaches a feature extractor that extracts a plurality of features from a document (**Masand,** abstract, 'Feature extractor' of applicant is demonstrated by

'features are extracted' of Masand.); a classifier that processes the document based on the extracted features in a knowledge acquisition mode in which an association of a classification with each document is added incrementally to a knowledge base and in a document classification mode in which the classifier (**Masand,** C29:63 through C30:39, abstract; 'Knowledge acquisition mode' of applicant is equivalent to 'training data bases (TDB) of Masand. 'Added incrementally' of applicant is equivalent to 'piecemeal approach' of Masand. There are no parallel processors in Masand, thus all information is added incrementally. A 'classifier' of applicant is disclosed by the invention of Masand.), using the knowledge base, determines a predicted classification for the document. (**Masand,** C1:65 through C2:10; An example of a 'knowledge base' of applicant is equivalent to 'set of rules' of Masand.)

Masand does not teach the classifier being switchable between the modes under user control for each document.

Mathias teaches the classifier being switchable between the modes under user control for each document. (**Mathias,** C4:24-58, or Fig. 1, item 129; 'Switchable between modes' of applicant is disclosed by a 'switch' of Mathias.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Masand by being able to alter states as taught by Mathias to have the classifier being switchable between the modes under user control for each document.

For the purpose of to avoid over training and improve the speed of the classifier when not in training mode.

Masand teaches a router (**Masand,** C9:4-16) that routes the document to one of a plurality of destinations in dependence upon the classification (**Masand,** C7:1-25; 'Destinations in dependence upon the classification' of applicant depends upon the result of the 'cumulative comparison score' to a 'predetermined threshold score' of Masand.), and wherein the router compares the confidence value to a threshold, the router making at least one of an automatic routing decision and a manual routing decision in dependence upon the comparison (**Masand,** C23:66 through C24:44; 'Automatic routing decision' of applicant is equivalent to 'successfully attempted by the system, that is, for which the confidence score exceeds a selected threshold' of Masand. 'Manual routing' of applicant is equivalent to 'being rejected or, for example, referred to human experts' of Masand.), and wherein the threshold is adjustable to match a desired confidence value to allow transition from a state where manual routing is favored to a state that favors automatic routing. (**Masand,** C23:66 through C24:44; 'Threshold is adjustable' of applicant is disclosed by being able to select a threshold of Masand.)

Masand and Mathias do not teach wherein at least one of a misrouted document.

Kamel teaches wherein at least one of a misrouted document. (**Kamel,** C29:66 through C30:4; The prevention of a misrouted document of applicant is equivalent to 'feedback system' to avoid misrouted messages.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Masand and Mathias by illustrating that documents can be misrouted as taught by Kamel to have wherein at least one of a misrouted document.

For the purpose of further describing corrective measures for the misrouted document.

Masand teaches is sent to a correct destination by a manual routing. (**Masand,** C23:66 through C24:9; 'Manual routing' is 'referred to human experts' of Masand.)

Masand does not teach the classifier being switched to the knowledge acquisition mode when a document has been determined to be misrouted.

Mathias teaches the classifier being switched to the knowledge acquisition mode when a document has been determined to be misrouted. (**Mathias,** Fig. 1,; Mathias illustrates a 'feedback system' in which the switch 129 can be in the 'train' position. 'knowledge acquisition mode' of applicant is equivalent to 'train' of Mathias.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Masand by being able to alter between executing and training modes as taught by Mathias to have the classifier being switched to the knowledge acquisition mode when a document has been determined to be misrouted.

For the purpose of updating the knowledge database, thus reducing manual classification tasks.

Masand teaches wherein a rule insertion is performed in the knowledge acquisition mode in which a plurality of features are input by a user to the classifier together with a classification with which the features are associated. (**Masand,** C1:65 through C2:10, C29:63 through C30:39; An example of a 'Rule insertion' of applicant is equivalent to 'set of rules' and 'training data' of Masand.)

Claim 9

Masand teaches wherein one of the plurality of destinations is a system administrator workstation where the router is arranged to route the document for manual routing after the manual routing decision. (**Masand,** C23:66 through C24:9; 'System administrator' of applicant is equivalent to 'human experts' of Masand.)

Claim 13

Masand teaches wherein the destinations include a system administrator workstation to which the other destinations are connected. (**Masand,** C23:66 through C24:9; 'System administrator' of applicant is equivalent to 'human experts' of Masand.) Masand and Mathias do not teach misrouted documents being sendable by the other destinations to the system administrator workstation for manual routing.

Kamel teaches misrouted documents being sendable by the other destinations to the system administrator workstation for manual routing. (**Kamel,** C29:66 through C30:4; 'Misrouted documents being sendable' of applicant is illustrated by a 'loop feedback system' of Kamel.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Masand and Mathias by illustrating that documents can be misrouted as taught by Kamel to have misrouted documents being sendable by the other destinations to the system administrator workstation for manual routing.

For the purpose of not losing documents which were first sent to the wrong destination.

Claim 14

Masand teaches wherein the system administrator (**Masand,** C23:66 through C24:9; 'System administrator' of applicant is equivalent to 'human experts' of Masand.) workstation is connected to the feature extractor. (**Masand,** abstract, 'Feature extractor' of applicant is demonstrated by 'features are extracted' of Masand.) and the classifier (**Masand,** abstract; A 'classifier' of applicant is disclosed by the invention of Masand.) Masand and Mathias do not teach the arrangement being such that a misrouted document, in association with an actual classification supplied at the system administrator workstation.

Kamel teaches the arrangement being such that a misrouted document, in association with an actual classification supplied at the system administrator workstation. (**Kamel,** C29:66 through C30:4; 'Misrouted documents being sendable' of applicant is illustrated by a 'loop feedback system' of Kamel.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Masand and Mathias by classifying misrouted documents by the system administrator as taught by Kamel to have the arrangement being such that a misrouted document, in association with an actual classification supplied at the system administrator workstation.

For the purpose of improving the knowledge system which reduces the system administrator's work load.

Masand teaches is processed in the knowledge acquisition mode to add the association of the actual classification with the misdirected document to the knowledge base. (**Masand,** C1:65 through C2:10, C29:63 through C30:39; An example of a 'Knowledge acquisition mode' of applicant is equivalent to 'set of rules' and 'training data' of Masand.)

Claim 19

Masand teaches a feature extractor that extracts a plurality of features from a document (**Masand,** abstract, 'Feature extractor' of applicant is demonstrated by 'features are extracted' of Masand.); a classifier that processes the document based on the extracted features in one of a knowledge acquisition mode(**Masand,** abstract; A 'classifier' of applicant is disclosed by the invention of Masand.) or a document classification mode and outputs a predicted classification and a confidence value. (**Masand,** C23:66 through C24:44; 'Outputs a predicted classification' of applicant is equivalent to 'successfully attempted by the system, that is, for which the confidence score exceeds a selected threshold' of Masand. 'Manual routing' of applicant is equivalent to 'being rejected or, for example, referred to human experts' of Masand.)

Masand does not teach wherein the classifier is switchable between the knowledge acquisition mode or the document classification mode for each document based on user input.

Mathias teaches wherein the classifier is switchable between the knowledge acquisition mode or the document classification mode for each document based on user

input. (**Mathias,** C4:24-58, or Fig. 1, item 129; 'Switchable between modes' of applicant is disclosed by a 'switch' of Mathias.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Masand by being able to alter states as taught by Mathias to have wherein the classifier is switchable between the knowledge acquisition mode or the document classification mode for each document based on user input.

For the purpose of to avoid over training and improve the speed of the classifier when not in training mode.

Masand teaches a router that operates in one of an automatic or manual mode to route the document to at least one of a plurality of destinations, wherein the router mode is switched between the automatic mode or the manual mode based on a comparison of the confidence value to a threshold (**Masand,** C9:4-16), and wherein at least one of a misrouted document is sent to a correct destination by a manual routing. (**Masand,** C23:66 through C24:9; 'Manual routing' is 'referred to human experts' of Masand.)

Masand does not teach the classifier being switched to the knowledge acquisition mode when a document has been determined to be misrouted.

Mathias teaches the classifier being switched to the knowledge acquisition mode when a document has been determined to be misrouted. (**Mathias,** Fig. 1,; Mathias illustrates a 'feedback system' in which the switch 129 can be in the 'train' position. 'knowledge acquisition mode' of applicant is equivalent to 'train' of Mathias.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Masand by being able to alter between executing

and training modes as taught by Mathias to have the classifier being switched to the knowledge acquisition mode when a document has been determined to be misrouted.

For the purpose of updating the knowledge database, thus reducing manual classification tasks.

Masand teaches and wherein a rule insertion is performed in the knowledge acquisition mode in which a plurality of features are input by a user to the classifier together with a classification with which the features are associated. (**Masand,** C1:65 through C2:10, C29:63 through C30:39; An example of a 'Knowledge acquisition mode' of applicant is equivalent to 'set of rules' and 'training data' of Masand.)

Claim 20

Masand teaches wherein the threshold is adjustable to match a desired confidence value to allow transition from a state where manual routing is favored to a state that favors automatic routing. (**Masand,** C23:66 through C24:44; 'Threshold is adjustable' of applicant is disclosed by being able to select a threshold of Masand.)

Claim 21

Masand teaches wherein the user is a system administrator workstation coupled to the feature extractor and the classifier. (**Masand,** C23:66 through C24:9, abstract; 'System administrator' of applicant is equivalent to 'human experts' of Masand. A 'classifier' of applicant is disclosed by the invention of Masand. 'Feature extractor' of applicant is demonstrated by 'features are extracted' of Masand.)

Claim 23

Masand does not teach wherein when a document has been determined to be misrouted, the system administrator classifies the misrouted document to provide an actual classification.

Mathias teaches wherein when a document has been determined to be misrouted, the system administrator classifies the misrouted document to provide an actual classification. (**Mathias,** C9:29-51; 'Administrator ... provide an actual classification' of applicant is equivalent to 'each evaluation image is typically provided by a human' of Mathias.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Masand by classifying misrouted documents as taught by Mathias to have wherein when a document has been determined to be misrouted, the system administrator classifies the misrouted document to provide an actual classification.

For the purpose of increasing the knowledge base to reduce manual classification by the system administrator.

Claim 24

Masand teaches wherein the classifier adds an association to the actual classification. (**Masand,** C29:63 through C30:39, abstract; 'Adds an association' of applicant is equivalent to 'piecemeal approach' of Masand.)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2, 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Masand, Mathias and Kamel in view of Tan ('Learning user profiles for personalized information dissemination', referred to as **Tan**)

Claim 2

Masand, Mathias and Kamel do not teach wherein the classifier comprises a supervised adaptive resonance theory (ART) system.

Tan teaches wherein the classifier comprises a supervised adaptive resonance theory (ART) system. (**Tan,** Abstract) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Masand, Mathias and Kamel by using an ART system as taught by Tan to have wherein the classifier comprises a supervised adaptive resonance theory (ART) system.

For the purpose of having a system that performs incremental supervised learning of recognition categories and multidimensional maps for both binary and analog patterns.

Claim 4

Masand, Mathias and Kamel do not teach wherein the system comprises an adaptive resonance associative map (ARAM) system.

Tan teaches wherein the system comprises an adaptive resonance associative map (ARAM) system. (**Tan,** Abstract) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Masand, Mathias and Kamel by using an ARAM system as taught by Tan to have wherein the system comprises an adaptive resonance associative map (ARAM) system.

For the purpose of providing a predicted classification for the output document in response to the input feature vector.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the

subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Masand, Mathias, Kamel and Tan in view of Tan2. ('Cascade ARTMAP: Integrating neural computation and symbolic knowledge processing", referred to as **Tan2**)

Claim 3

Masand, Mathias, Kamel and Tan do not teach wherein the system comprises an ARTMAP system.

Tan2 teaches wherein the system comprises an ARTMAP system. (**Tan2,** abstract) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Masand, Mathias, Kamel and Tan by using an ARTMAP system as taught by Tan2 to have wherein the system comprises an ARTMAP system.

For the purpose of allowing incremental learning and rule insertion.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Masand, Mathias and Kamel in view of Register. (U. S. Patent 5371807, referred to as **Register**)

Claim 10

Masand, Mathias and Kamel do not teach wherein the features are formed into a feature vector for input to the classifier.

Register teaches wherein the features are formed into a feature vector for input to the classifier. (**Register,** C8:60 through C9:23; 'Features' of applicant is equivalent to 'keywords' of Register. 'Feature vector' of applicant is equivalent to 'n-dimensional vector' of Register.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Masand, Mathias and Kamel by putting information into vector form as taught by Register to have wherein the features are formed into a feature vector for input to the classifier.

For the purpose of having inputted data into a form which maps to a neural network well.

Claim 11

Masand, Mathias and Kamel do not teach wherein the features comprise at least one of classification-associated words and phrases which may appear in the document.

Register teaches wherein the features comprise at least one of classification-associated words and phrases which may appear in the document. (**Register,** C8:60 through C9:23; 'Features comprise ... classification-associated words' of applicant is equivalent to 'keywords' of Register.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Masand, Mathias and Kamel by using keywords and phrases as taught by Register to have wherein the features comprise at least one of classification-associated words and phrases which may appear in the document.

For the purpose of narrowing the scope of the classification by using the classification-associated words and phrases.

Claim 12

Masand, Mathias and Kamel do not teach wherein the feature extractor is arranged to provide a measure of the frequency of occurrence of the features in the document.

Register teaches wherein the feature extractor is arranged to provide a measure of the frequency of occurrence of the features in the document. (**Register,** C8:60 through C9:23; 'Frequency' of applicant is equivalent to 'frequency' of Register.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Masand, Mathias and Kamel by using frequency as a measure as taught by Register to have wherein the feature extractor is arranged to provide a measure of the frequency of occurrence of the features in the document.

For the purpose of using the value of the frequency as a direct correlation towards a specific classification.

Response to Arguments

5. Applicant's arguments filed on August 13, 2007 for claims 1-3, 9-14, 19-21, 23-24 have been fully considered but are not persuasive.

6. In reference to the Applicant's argument:

The present Amendment is being submitted as a supplement to the Request for Continued Examination, filed June 15, 2007, in accordance with the Examiners' suggestions made during the personal interview held on June 27, 2007 between Examiner Coughlan, Supervisory Patent Examiner Vincent and Applicants' representative, Mr. Metjahic. Upon entry of the present Amendment, including the amendments made herein, claims 1-4, 9-14, 19-21 and 23-24 will be pending, of which claims 1 and 19 will have been amended to clarify the subject matter recited therein, without limiting the scope of protection to which Applicants are entitled. Applicants

submit that the amendments should not be construed as admissions to the propriety of the Examiner's rejection. Applicants respectfully submit that the pending claims 1-4, 9-14, 19-21 and 23-24 are now in condition for allowance.

Initially, Applicants express their appreciation to Examiner Coughlan and Supervisory Patent Examiner Vincent for conducting a personal interview with their representative, Mr. Safet Metjahic, on June 27, 2007. During the interview, the Examiners and Mr. Metjahic discussed the merits of the Final Official Action, mailed March 15, 2007, as well as the Advisory Official Action, mailed June 1, 2007. Mr. Metjahic respectfully submitted that the currently pending claims are patentably distinguishable over the cited documents, and in particular, over the nine separate U.S. patents that were relied on by the Examiner in the rejections set forth in the Final Official Action, including MASAND et al., WHITE, et al., MIZUNO, ALAM, GLIER, SALGADO, REGISTER, TAN and/or TAN2. Mr. Metjahic explained that any proper combination of the teachings of the cited documents would not teach or suggest, for example, a classifier that processes documents in one of a knowledge acquisition mode or a document classification mode, and outputs a predicted classification and a confidence value on an individual document basis, much less where the classifier is switchable between the modes for each document based on user input. Mr. Metjahic further explained that any proper combination of the cited art would not teach or suggest, for example, a threshold that is adjustable to match a desired confidence value to allow transition from a state where manual routing is favored to a state that favors automatic routing. Moreover, Mr. Metjahic explained how the cited documents taught away from Applicants' invention and the Examiner's suggested combinations.

Examiner's response:

Only three references are used for the independent claims. Three additional references are used for the remaining dependent claims, two of which are from the inventor. In response to Applicant's argument that there is no suggestion to combine the references, the Examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would be motivated to make the proposed combination of references. In re Nomiya, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is not what individual references themselves suggest but rather what the combination of

disclosures taken as a whole would suggest to one of ordinary skill in the art. In re Keller, 648 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Sernaker, 702 F.2d 989, 217 USPQ 1 (Fed. Cir. 1983); In re McLaughlin, 170 USPQ 209 (CCPA 1971). References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. In re Bozek, 163 USPQ 545 (CCPA 1969). 'Feature extractor' of applicant is demonstrated by 'features are extracted' of Masand. (**Masand,** abstract,) 'Knowledge acquisition mode' of applicant is equivalent to 'training data bases (TDB) of Masand. 'Added incrementally' of applicant is equivalent to 'piecemeal approach' of Masand. There are no parallel processors in Masand, thus all information is added incrementally. A 'classifier' of applicant is disclosed by the invention of Masand. (**Masand,** C29:63 through C30:39, abstract) An example of a 'knowledge base' of applicant is equivalent to 'set of rules' of Masand. (**Masand,** C1:65 through C2:10) 'Switchable between modes' of applicant is disclosed by a 'switch' of Mathias. (**Mathias,** C4:24-58, or Fig. 1, item 129) Masand teaches a router (**Masand,** C9:4-16) 'Destinations in dependence upon the classification' of applicant depends upon the result of the 'cumulative comparison score' to a 'predetermined threshold score' of Masand. (**Masand,** C7:1-25) 'Automatic routing decision' of applicant is equivalent to 'successfully attempted by the system, that is, for which the confidence score exceeds a selected threshold' of Masand. 'Manual routing' of applicant is equivalent to 'being rejected or, for example, referred to human experts' of Masand. (**Masand,** C23:66 through C24:44;) 'Threshold is adjustable' of applicant is disclosed by being able to select a threshold of Masand. (**Masand,** C23:66 through C24:44) The prevention of a

misrouted document of applicant is equivalent to 'feedback system' to avoid misrouted messages. (**Kamel,** C29:66 through C30:4) 'Manual routing' is 'referred to human experts' of Masand. (**Masand,** C23:66 through C24:9) Mathias illustrates a 'feedback system' in which the switch 129 can be in the 'train' position. 'knowledge acquisition mode' of applicant is equivalent to 'train' of Mathias. (**Mathias,** Fig. 1) An example of a 'Rule insertion' of applicant is equivalent to 'set of rules' and 'training data' of Masand. (**Masand,** C1:65 through C2:10, C29:63 through C30:39) Office Action stands

7. In reference to the Applicant's argument:

The Examiners agreed to reconsider the cited art and the patentability of each of the pending claims. The Examiners did, however, request that Applicants provide an explicit reference to the Specification that provides a description of the adjustable threshold element in, for example, independent claims 1 and 19. The Examiners also requested that Applicants amend, for example, the terms "arranged to" and "operable" in each of independent claims 1 and 19. Accordingly, Applicants have amended each of independent claims 1 and 19, as suggested by the Examiners, without limiting the scope of protection, and submit that support for the adjustable threshold element of claims 1 and 19 may be found, for example, at page 4, lines 5-11 of Applicants' Specification. Thus, Applicants believe that independent claims 1 and 19 are now in condition for allowance, and respectfully request reconsideration and withdrawal of the rejections of claim 1 and 19 under 35 U.S.C. §103 set forth in the Official Action dated March 15, 2007.

Further, since claims 2-4, 9-14, 20-21 and 23-24 depend from claims 1 and 19, and are patentably distinguishable for at least the reasons provided with respect to claims 1 and 19, as well as for the reasons provided in the Request for Continued Examination, filed June 15, 2007, which are incorporated herein by reference in their entirety, and for additional reasons related to their own recitations, Applicants request reconsideration and withdrawal of the rejections of claims 2-4, 9-14, 20-21 and 23-24 under 35 U.S.C. 103 set forth in the Official Action dated March 15, 2007.

Thus, Applicants believe that claims 1-4, 9-14, 19-21 and 23-24 are in condition for allowance and respectfully request reconsideration and withdrawal of all rejections and

an indication of the allowability of claims 1-4, 9-14, 19-21 and 23-24 in the next Official communication.

Examiner's response:

'Threshold is adjustable' of applicant is disclosed by being able to select a threshold of Masand. (**Masand,** C23:66 through C24:44) Office Action stands.

Examination Considerations

8. The claims and only the claims form the metes and bounds of the invention. "Office personnel are to give the claims their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d, 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, l 45-48; p 2100-9, c 1, l 1-4). The Examiner has the full latitude to interpret each claim in the broadest reasonable sense. Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

9. Examiner's Notes are provided to assist the applicant to better understand the nature of the prior art, application of such prior art and, as appropriate, to further indicate other prior art that maybe applied in other office actions. Such comments are entirely consistent with the intent and sprit of compact prosecution. However, and

unless otherwise stated, the Examiner's Notes are not prior art but link to prior art that one of ordinary skill in the art would find inherently appropriate.

10. Examiner's Opinion: Paragraphs 8 and 9 apply. The Examiner has full latitude to interpret each claim in the broadest reasonable sense.

Conclusion

11. The prior art of record and not relied upon is considered pertinent to the applicant's disclose.

-'An automatic indexing and neural network approach to concept retrieval and classification of multilingual (Chinese-English) documents' : Chung-Hsin

-U. S. Patent 5361379: White

-U. S. Patent 3846755: Hart

-U. S. Patent 5937084: Crabtree

-U. S. Patent 5909680: Hull

-U. S. Patent 5909510: Nakayama

-U. S. Patent 5873056: Liddy

-U. S. Patent 5832470: Morita

12. Claims 1-3, 9-14, 19-21, 23-24 are rejected.

Correspondence Information

13. Any inquiry concerning this information or related to the subject disclosure should be directed to the Examiner Peter Coughlan, whose telephone number is (571) 272-5990. The Examiner can be reached on Monday through Friday from 7:15 a.m. to 3:45 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor David Vincent can be reached at (571) 272-3080. Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks,

Washington, D. C. 20231;

Hand delivered to:

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401 Dulany Street,

Alexandria, Virginia 22313,

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have any questions on access to Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

Peter Coughlan

8/28/2007

JOSEPH P HIRL
PRIMARY EXAMINER
TECHNOLOGY CENTER 2100